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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,996

03/30/2006

Makoto Aoki

127612

9798

25944

7590

05/01/2007

OLIFF & BERRIDGE, PLC

P.O. BOX 19928

ALEXANDRIA, VA 22320

EXAMINER

VO, HAI

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

05/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/573,996

Applicant(s)

AOKI ET AL.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/30/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Drawings

1. Figures 12-14 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Lynn (US 5,856,640). It appears that an infrasound source is not part of the

infrasound absorbing structure as well as a building as instantly claimed.

Therefore, a relative position of an infrasound source to the porous layer and a back wall is found irrelevant to the infrasound absorbing structure and the building of the claimed invention. Lynn teaches a three walled ground runup enclosure including a back wall and two side walls for the reduction of the noise created by the jet engines of jet aircraft when the engines are tested (figure 5).

The enclosure comprises a blast fence and a sound absorbing wall wherein the blast fence is about 40 ft to the rear of the aircraft, the sound absorbing wall located 15 to 20 ft (4.5 to 6 m) further to the rear of the blast fence (column 6, lines 20-30). The sound absorbing wall comprises an array of cushions of fiberglass (column 6, lines 55-60, figure 7). Accordingly, Lynn anticipates the claimed subject matter.

5. Claims 2, 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynn (US 5,856,640) as applied to claims 1 and 5 above, and further in view of Watanabe et al (US 6,554,101). Lynn does not specifically disclose a surface density of the sound absorbing material. Watanabe, however, teaches a sound absorbing material having a surface density from 3 to 5 kg/m² to ensure an adequate shape retaining property while maintaining an improved sound absorbing and shielding performance (column 5, lines 50-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sound absorbing material having a surface density as taught by Watanabe motivated by the desire to ensure an adequate

shape retaining property of the cushions while maintaining an improved sound absorbing and shielding performance.

6. Claims 1, 3-5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafhaupt (US 4,958,700) in view of Lynn (US 5,856,640). Schafhaupt teaches a protective facility for suppressing noise produced by aircraft engines comprising a horseshoe shape for surrounding a jet aircraft. The protective facility comprises a mesh material 6 facing the sound source, and a sound absorbing wall 7 as shown in figure 1. The mesh material reads on Applicant's porous layer. Alternatively, the mesh material reads on Applicant's back wall since it appears that an infrasound source is not part of the infrasound absorbing structure as well as a building as instantly claimed. Therefore, a relative position of an infrasound source to the porous layer and a back wall is found irrelevant to the infrasound absorbing structure and the building of the claimed invention. Schafhaupt teaches additional sound absorption walls 8 and 9 with inwardly angled extensions at rear end (figure 1). Shafhaupt does not specifically disclose how far the mesh material is situated from the sound absorbing wall. Lynn teaches a three walled ground runup enclosure including a back wall and two side walls for the reduction of the noise crated by the jet engines of jet aircraft when the engines are tested (figure 5). The enclosure comprises a blast fence and a sound absorbing wall wherein the blast fence is about 40 ft to the rear of the aircraft, the sound absorbing wall located 15 to 20 ft (4.5 to 6 m) further to the rear of the blast fence (column 6, lines 20-30). Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to place the sound absorbing wall about 15 to 20 ft (4.5 to 6 m) further to the rear of the mesh material because such a distance is sufficient to divert the hot, powerful exhaust gas which could damage the sound wall.

7. Claims 2, 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schafhaupt (US 4,958,700) in view of Lynn (US 5,856,640) as applied to claims 1 and 5 above, further in view of Watanabe et al (US 6,554,101).

Schafhaupt does not specifically disclose a surface density of the sound absorbing material. Watanabe, however, teaches a sound absorbing material having a surface density from 3 to 5 kg/m² to ensure an adequate shape retaining property while maintaining an improved sound absorbing and shielding performance (column 5, lines 50-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sound absorbing material having a surface density as taught by Watanabe motivated by the desire to ensure an adequate shape retaining property of the cushions while maintaining an improved sound absorbing and shielding performance.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HV

Hai Vo

**HAIVO
PRIMARY EXAMINER**